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| 09/719,440 | 12/12/2000 | Arno Karwath | 870-003-128 | 7659 |

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EXAMINER

LEYKIN, RITA

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2837

DATE MAILED: 02/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/719,440

Applicant(s)

KARWATH ET AL.

Examiner

Rita Leykin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/12/2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-13 and 23-36 is/are pending in the application.
- 4a) Of the above claim(s) 1-10, 14-22 and 41 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-13 is/are allowed.
- 6) ☒ Claim(s) 23-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 6.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 11-13 and 23-36, drawn to Motor control system with Specific system operational feature, classified in class 388, subclass 900.
 - II. Claims 1-10, 41 and 14-22, drawn to "Motive power system "classified in class 318, subclass 254 (electronically commutated motors).

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination of an electric motor and first and second voltage divider tapping points potentials requires the microprocessor only for switching the tapping points potentials to influence the motor function.

The subcombination has separate utility such as associated with the microprocessor volatile memory element and nonvolatile memory element configured for transferring at least one object between the microprocessor and memory elements.

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3. During a telephone conversation with Mr. Milton Oliver on February 5, 2002 a provisional election was made to prosecute the invention of motor control system with specific system operational feature, claim 11-13 and 23-36. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-10 and 14-22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claims 23-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Archer et al. US # 5,592,058.

With reference to Fig. 1, Archer et al. introduce:

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- A system 100 that has an arrangement for electronically commutated motor 114, having a rotating assembly mechanically connected via a shaft to a device to be driven, such as fan 118;
- A microprocessor 102;
- A read only memory 106 that maybe incorporated with the microprocessor and having software used to control operation of microprocessor 102, (see column 4, lines 21-52);
- A nonvolatile memory PNV 120, for storing representative of system characteristics at a particular address as a set of operating parameters for the system 100, (see column 9, lines 5-15). Wherein, based on parameters stored in the system, microprocessor generates motor control signals M.C.S. via line 110. As a result, the motor control signals generated by the microprocessor 102 would be a function of stored parameters in addition to the control signal parameters, (see column 5, lines 21-42);
- With reference to Fig. 5 a serial interface between the ASIC 112 and microprocessor 102 provides serial communication to the ASIC 112 of a current reference signal (I_{ref}) among the others, (see column 11, lines 13-45);

- The non-volatile memory 120, stores the information in a permanent fashion often on hard disks and includes write protection of nonvolatile memory, by the design;
- The length of transferable objects, storing the information in the predefined directory as an address, comparing the stored addresses and retrieving the information for processing is design expedient;
- The presence of volatile memory in computer setting is a matter of design choice;
- A storage site used to compensate for differences in data flow rates or interface between data systems with different rates of transmission known as buffer memory - are well known in the art.

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made use known microprocessor components for storing, adjusting and transmitting the information in order to control the motor for a device such a fan according to the system required characteristics and stored information.

The reason is to adapt motor operational characteristics to needs of system user and maintenance.

Allowable Subject Matter

1. Claims 11-13 are allowed.

2. The following is a statement of reasons for the indication of allowable subject matter: Prior art listed in the attached PTO-892 form considered to be pertinent to the submitted application. However, none of the cited prior art teach or suggests in combination:

- Switching on the motor and thereafter monitoring the start-up time of the motor;
- During the start-up time, setting under control of a program running by the microprocessor, a current limiting value (I_{ref}), for limiting the motor current to a first value ($I_{ref} = 1$);
- Ascertaining expiration of the start-up time (T_s) and after in program controlled manner, setting the current limiting value (I_{ref}) to a second value ($I_{ref} = TST$) that is different from the first value.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita Leykin whose telephone number is (703)308-5828. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on (703)308-3370.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

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Rita Leykin
Examiner
Art Unit 2837

R.L.
February 21, 2002

Rita Leykin